

FIG. 1

The first series of experiments was conducted to determine the effect of the concentration of the electrolyte on the performance of the MEAs. The results of these experiments are shown in Figure 1. The performance of the MEAs improved as the concentration of the electrolyte increased from 0.5 M to 1.0 M. This is due to the fact that the higher concentration of the electrolyte provides a higher conductivity, which in turn leads to a higher current density.

Electrode Performance

The second series of experiments was conducted to determine the effect of the temperature on the performance of the MEAs. The results of these experiments are shown in Figure 2. The performance of the MEAs improved as the temperature increased from 40°C to 60°C. This is due to the fact that the higher temperature provides a higher rate of reaction, which in turn leads to a higher current density. The performance of the MEAs also improved as the pressure of the oxygen gas increased from 10 psig to 20 psig. This is due to the fact that the higher pressure provides a higher concentration of oxygen gas, which in turn leads to a higher current density.

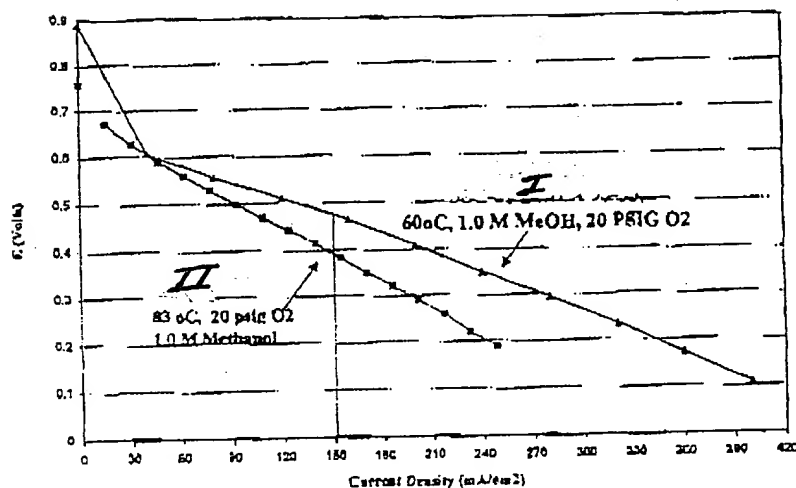


Figure 2. Electrode performance of MEAs prepared by the old process and the new process.

FIG. 2